MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020

BJA2014 – JAVA PROGRAMMING INTERMEDIATE

(All sections / Groups)

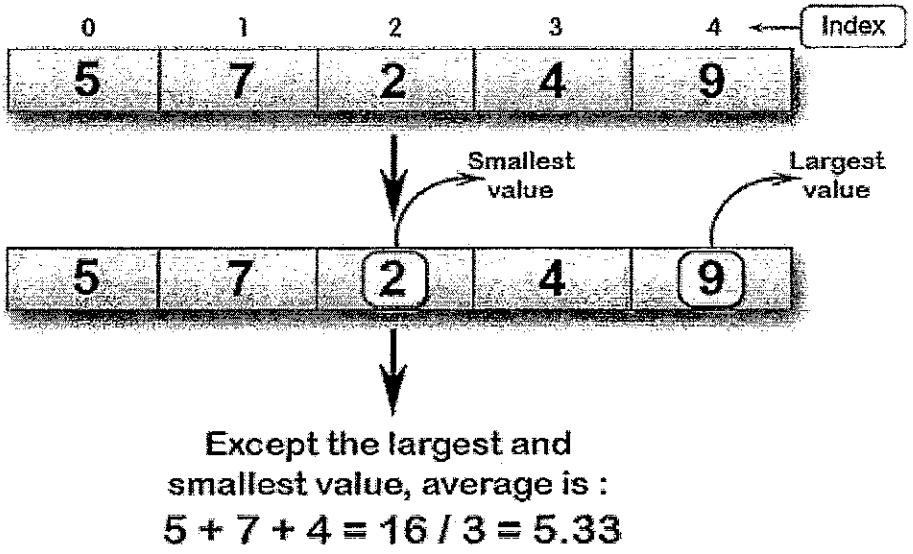
09 MAR 2020
09.00 a.m. -11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This exam is a computer-based examination.
2. Answer this exam by using the **Eclipse IDE**, which installed into the computer.
3. Create a folder in the computer desktop location. Name the folder with the student ID. All the answer should save into the created folder. The file should be either a java file (filename.java).
4. Switch **the workplace of the Eclipse IDE** to the folder that created in the desktop location, before starting to answer the exam.
5. There are four questions. Answer **ALL** questions.
6. A sample of the Java function reference will provide in the exam.
7. Copy the folder named with a student ID to the provided USB for examination Submission.

Question 1

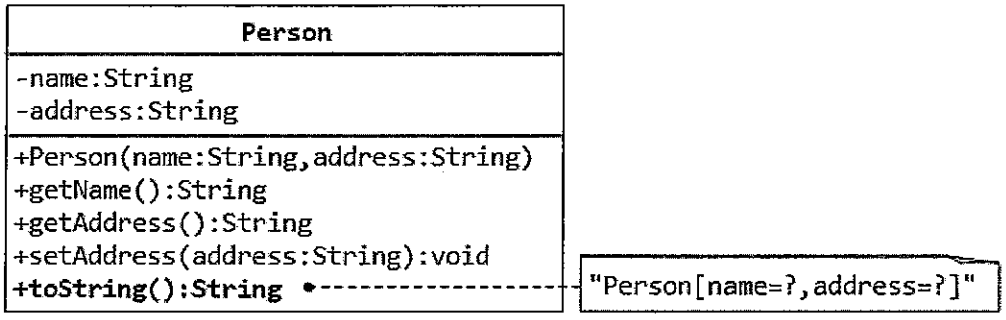
Write a Java program to compute the average value of an array of integers **except for** the largest and smallest values. The diagram below simulated the need for the programme. The array must use to write the program and the user allows to input the number.



(30 Marks)

Question 2

Write a Java program that creates a class calls **Person.** Kindly name the project name as **Question234**. The UML diagram shows the variable and method available in the Person Class.

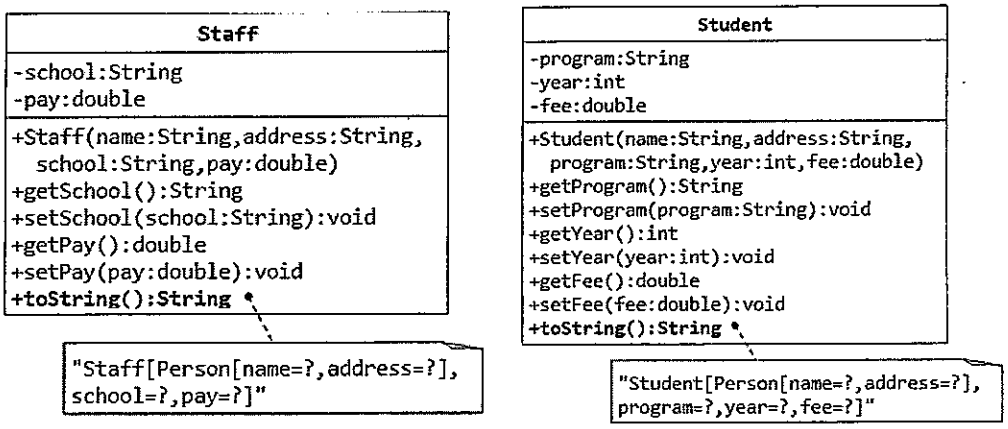


(20 Marks)

Continued ...

Question 3

As the extension of Question 2, extends the Person class into two different subclasses namely Student Class and Staff Class. Create these two classes into the java project of **Question234**. The UML diagram showcases the necessary variable and method need for each class.



(30 Marks)

Question 4

Write a testing program to test the classes created in question 2 and question 3. Create a new java file and name it as "schooldb.log". The testing requirement lists as follows:

a) Create two objects of Staff.
b) Create two objects of Student.
c) Print the objects of staff and write the information into a text file. Name the text file as "Question4Answer".
**Hints: Use the library and coding below to write into a text file.

```
import java.io.BufferedWriter;
import java.io.FileWriter;
import java.io.IOException;

try (FileWriter writer = new FileWriter("schooldb.log");
        BufferedWriter bw = new BufferedWriter(writer)){

                bw.write(……)

            } catch (IOException e) {
                  System.err.format("IOException: %s%n", e);
            }
```

(20 Marks)

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